

## ***Project Title and Project Purpose Statement***

**Project Title:** Project Exhale.

**Summary Description:** Environmental Awareness Foundation Inc. (EAF) and its partners are pleased to request \$30,000.00 to implement a project that seeks to improve the health of Clarkston Georgia residents by reducing the exposure to mold and other indoor air quality contaminants. EAF will lead a multi-disciplinary partnership that will detail the impact of mold and other contaminants on health and provide Clarkston residents with access to the resources that can help them resolve their environmental health concerns. This partnership will conduct four major program activities:

1. Complete a brief survey of Clarkston area residents to obtain basic information about the prevalence of both damp indoor environments, mold and the health conditions typically associated with damp environments.
2. Review literature available through HUD's Healthy Homes Technical Grant program to identify information and best practices with which to share information with community members to address mold problems in the Clarkston community.
3. Based on the findings of the literature review and using technical information already in hand, develop curriculum materials to be used in outreach activities.
4. Provide outreach to communities to share survey results, cost effective methods for preventing and controlling excess moisture and mold and opportunities for advocacy (where appropriate). As the Clarkston community includes a large number of residents for whom English is their second language, translation into four languages that are prevalent within the community will be available.

Project Exhale activities will increase the number of persons who are aware of indoor air quality issues within the Clarkston community. Through the project, program participants will:

- learn about the prevalence of mold in their homes and the homes of others in the community
- gain skills to help them reduce mold and other asthma trigger prevalence in their homes,
- gain knowledge of how they can mitigate problems in the home when participants discover them.

These activities will empower and educate Clarkston community residents to understand environmental and public health issues and to identify ways to address these issues at the local level.

The project location is Clarkston, Georgia, zip code 30021.

This project will address environmental justice issues as they relate to the prevention of indoor air pollution which is addressed by Clean Air Act, Section 103(b)(3): and Toxic Substances Control Act, Section 10(a):

## ***II. Environmental and Public Health Information about the Affected Community***

There is growing public awareness that exposure to mold can cause a variety of adverse health effects. According to the EPA, "Molds produce allergens (substances that can cause allergic reactions), irritants, and in some cases, potentially toxic substances (mycotoxins) Allergic

reactions to mold are common.” Molds have also been correlated with increased frequency of asthma attacks as it “can also cause attacks in people with asthma who are allergic to mold.”<sup>1</sup>

The 2011 American Housing Survey documented occurrence of mold as one of the identified Health and Safety Characteristics. It found a slightly smaller percentage of households in the Atlanta metro area reported the occurrence of mold than in the United States overall. While 3.3 % of the households in metro-Atlanta reported the incidence of mold, 3.5% of US households reported a similar incidence according to the survey<sup>2</sup>. While statistically this incidence seems relatively low, we suspect that mold is problems are concentrated in lower income communities who have fewer resources with which to address them. In metro-Atlanta, 25,000 African American households and 17,500 households below the poverty line indicated the presence of mold as part of the 2011 survey results<sup>3</sup>.

This project will target the low income community of Clarkston, Georgia to address mold issues in their community. Clarkston is a town in metro-Atlanta’s northeastern quadrant with a population of approximately 7000 residents, many of which are refugees from all regions of the world. The 2000 census reported that 33.7% of the population of Clarkston was foreign born compared to 15.2% for DeKalb County in which Clarkston is located.<sup>4</sup> The County has created several model programs for refugee integration and many thousands were resettled in Clarkston beginning in the 1990s.

While refugees resettlement services focus on language, housing, transportation and employment to assist in the initial integration of these individuals, there remains a need for health and more specifically environmental health support both of the refugee transplants and the low income population that lives in the area. The median household income in the area is \$37,500 compared to \$49,100 for the entire county. 19.5 percent of Clarkston families live below the poverty line compared to 7.8% of the families in the surrounding DeKalb County.<sup>5</sup>

Issues of mold and related health impacts have been problematic in Clarkston particularly in apartment complexes and older homes owned by seniors. In the case of apartment complexes, complex owners sometimes hide mold on walls and ceilings using paint before bringing in new tenants. Once the mold is revealed, the tenants can at best request relocation to another unit. If they stop paying rent, waiting for the problem to be fixed, they are evicted. The owner paints over the mold before another new tenant rents the unit. For seniors, mold is often discovered when homes are renovated through the Georgia Weatherization Assistance Program. Since the program does not cover mold remediation and remediation is expensive, senior homeowner are often left without a clear course of action.

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<sup>1</sup> "Can Mold Cause Health Problems?" *Can Mold Cause Health Problems?* US Environmental Protection Agency, 30 Sept. 2014. Web. 30 Nov. 2014.

<<http://compliance.supportportal.com/link/portal/23002/23009/Article/36091/Can-mold-cause-health-problems>>.

<sup>2</sup> "Metropolitan Summary Tables - AHS 2011." *American Housing Survey (AHS)*. US Census Bureau, 2 Oct. 2014. Web. 5 Dec. 2014. <<http://www.census.gov/programs-surveys/ahs/data/2011/ahs-metropolitan-summary-tables.html>>.

<sup>3</sup> "National Summary Report and Tables - AHS 2011." *American Housing Survey (AHS)*. US Census Bureau, 3 Dec. 2014. Web. 5 Dec. 2014. <<http://www.census.gov/programs-surveys/ahs/data/2011/h150-11.html>>.

<sup>4</sup> "DP02: Selected Social Characteristics 2000," American FactFinder. US Census Bureau, n.d. Web. 2 Dec. 2014.

<sup>5</sup> "DP03: Selected Economic Characteristics," American FactFinder. US Census Bureau, n.d. Web. 2 Dec. 2014.

While the state of Georgia does not require home or apartment complex owners to remediate molds, it has established a hotline to receive mold complaints. In its work in the community, EAF has received hundreds of calls through United Way's 211 hotline and assisted over 50 households in addressing mold issues over the last two years.

Emory University researchers led a recent smaller (currently unpublished ) mold survey in the Vine City and English Avenue neighborhoods of Atlanta. These neighborhoods are similar to Clarkson in having a relatively high level of poverty, and large amount of rental property and older housing stock. The study found mold in 53% of 150 housing units surveyed. We expect the incidence of mold in the Clarkston units to be similar to that in Vine City/English Avenue.

The survey found that in fewer than half (47%) of the residences in which mold was observed, residents knew it was there. Because language is a barrier to effective communication for many of the residents of Clarkson, we expect reporting of the incidence of mold and any associated environmental health problems to be lower than the average reported in the American Housing Survey and even lower than that reported by Vine City/English Avenue residents.

This community is both harmed by mold issues and often unable to take effective action to either reduce the impact of mold issues on their health or lobby for long term change. This project will furnish community members with many of the tools they need to address this environmental justice concern..

### ***III. Organization's Historical Connection to the Affected Community***

EAF staff first begun work in Clarkston in 2010 by providing a yearlong series of quarterly workshops on lead paint poison prevention. This workshop series offered a point of entry into the community and established partnerships with community groups and other non profit organizations working in the community. It was at these meetings, community members asked staff to hold community environmental health workshops.

This work continued in 2011 as EAF talked with community businesses, churches and schools about community workshops on environmental issues. Following this, EAF conducted a door to door outreach program in the Clarkston community holding one-on-one conversations with family members to identify the changes they wanted to see take place in the community. EAF later held a series of community environmental health workshops at the Clarkston Community Center in 2012 where Clarkston residents met to learn more about household health issues.

Through calls received as part of its participation in the United Way 211 program, EAF staff noted that complaints received and requests for assistance correlated with mold related issues. EAF received numerous calls reporting asthma and respiratory complaints; a large numbers of school absences demonstrated the extent of the health challenge. Older housing stock, particularly that built before 1978, is frequently infested with mold. Often housing stock that was subject to lead paint issues is subject to mold concerns.

Both EAF staff and its partner CDF have continued meeting with community groups to help them address environmental health issues of concern including mold. Community leaders have emerged from immigrant community. We now need to support these leaders by providing additional tools and information to build capacity. Language barriers are a major problems and translation of materials is often necessary.

The goal of Project Exhale is to create a series of community based action circles that will serve as central venues that can address mold and other environmental health issues in the Clarkston area over the long term. EAF has a long history of providing community outreach and education both in Clarkston and throughout the metro-Atlanta area. CDF already facilitates a series of refugee-specific action circles working on a wide range of health and safety issues. This project will add environmental health to the issues these groups are already working on. Additionally, this project will create action circles at new locations and strengthen the skills of the participants so they can be resident-led and self-sustaining.

A final connection to the community has been made through the involvement Emory University's Rollins School of Public Health. The School and the community of Clarkston have a long-standing partnership through the Clarkston-Rollins Connection (ClaRC) program. Features of this partnership are highlighted in the subsequent Partnership subsection of this proposal. Both EAF and its core partners CDF and Emory University's Rollins School of Public Health will continue to provide technical and organization support to Clarkston community members and newly-forming organizations as they continue to develop capacity.

#### ***IV. Project Description***

Project Exhale seeks to improve the health of Clarkston residents by reducing the exposure to mold and other indoor air quality contaminants. Through detailing the impact of mold and other contaminants on health and providing residents with access to the resources that can help address environmental health issues, EAF will give participants:

- information about the prevalence of mold in their homes and the homes of others in the community
- the skills to help them reduce mold and other asthma trigger prevalence in their homes,
- the knowledge of how they can mitigate mold problems in the home when they have been identified.

This project will also increase the number of persons who are aware of indoor air quality issues within the Clarkston community. From this position of greater knowledge and skill, residents will be empowered to improve their own health and mobilized to take collective action.

The following program outputs are anticipated:

- Forty homes or apartments will be evaluated to document the presence of mold and associated health issues,
- Live translation will be available during in-home surveys and follow up meeting in a minimum of four languages (besides English),
- A survey follow up meeting will be held at four to six sites to inform community members of the survey results,
- A series of curriculum materials will be prepared for the program based on best practices,
- 100 people will receive training and related training materials,
- A series of five training sessions will be held at each of the 4-6 training sites,
- Live translation will be provided during training sessions in a minimum of four languages (besides English).

## Proposed Activities

The following series of activities is planned to achieve these objectives.

**Survey:** Emory researchers have evaluated mold incidence in the Proctor Creek area in the City of Atlanta. We will use the survey instruments already prepared to complete a small, non-representative survey of homes in the Clarkston area. This survey will obtain basic information about the prevalence of both damp indoor environments, mold and the health conditions typically associated with damp environments. University partners in conjunction with EAF staff and community translators will be involved with this activity. This survey will be the primary mechanism to engage community members who then will become core participants in the outreach activity further described below.

**Literature review:** Federal programs such as the HUD's Healthy Homes Technical Grant program have been working to advance the recognition and control of residential health and safety. Recent areas of interest include:

1. Developing easily replicable, cost - effective methods for preventing and controlling excess moisture and mold in various types of residential buildings.
2. Improving indoor air quality, such as through cost - effective approaches to upgrading residential ventilation or improving control/management of combustion appliances.
3. Providing rigorous evaluation of policies that contribute to the supply of affordable, healthy and energy efficient housing.
4. Evaluating the effectiveness of education and outreach methods designed to give at risk families (including minority families and those with limited English proficiency) the knowledge to adopt self -protective behaviors with respect to residential health hazards.
5. Conducting cost -benefit or cost - effectiveness studies on the health benefits of healthy homes interventions in high risk populations (e.g., implementation of smoke-free housing policies, reductions in the incidence of injuries among children or the elderly, reductions in asthma morbidity through improvements to indoor environmental quality).

The project team will review this literature to identify information and best practices with which to share information with community members to identify and resolve mold problems in the Clarkston community. Resources available through the US Department of Housing and Urban Development's, Healthy Homes Program<sup>6</sup> and Healthy Homes Grant Program.<sup>7</sup> University partners will lead this activity.

**Curriculum Development:** Based on the findings of the literature review and using technical information already in hand, core partners will develop curriculum materials to be used in outreach activities. These materials will identify cost effective methods for preventing and controlling excess moisture and mold and opportunities for advocacy (where appropriate).

**Community Outreach:** Using the information from the elements above, EAF will provide outreach to communities to share survey results and informational materials. Presenters will

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<sup>6</sup> "Healthy Homes Program Resources." *HUD's Healthy Homes Initiative Resources*. US Department of Housing and Urban Development, 30 Mar. 2007. Web. 30 Dec. 2014.  
<<http://www.hud.gov/offices/lead/hhi/hhiresources.cfm#programdev>>.

<sup>7</sup> "The Healthy Homes Technical Studies Grant Program - HUD." *Healthy Homes Program - HUD*. US Department of Housing and Urban Development, n.d. Web. 15 Nov. 2014.  
<[http://portal.hud.gov/hudportal/HUD?src=%2Fprogram\\_offices%2Fhealthy\\_homes%2Fhhi%2Fhhts](http://portal.hud.gov/hudportal/HUD?src=%2Fprogram_offices%2Fhealthy_homes%2Fhhi%2Fhhts)>.

deliver these results using identified best practices in education and outreach for at risk families. As the Clarkston community includes a large number of residents for whom English is their second language, oral presentations will be translated into the four most prevalent languages within the community.

## **Strengthening Community Connections**

Because of language, transportation and other barriers, both EAF and CDF have found that immigrant populations are less likely to come to large events at unfamiliar settings. We are therefore choosing to convene program participants in small groups near their homes where they are already gathering for workshops and other training sessions. Survey participants will be drawn from ongoing community gatherings. Flyers placed at target apartment complexes and postcards handed out community events will also be used to recruit participants. Participants will be convened in multiple “Information Sessions” where they will be able to sign up for survey slots facilitated through translation services in one of the 4 target languages provided. EAF will conduct three Information Sessions at each of four to six proposed gathering locations. We are targeting to contact 200 families in order to conduct the surveys at 40 homes or apartments.

The survey itself will be conducted at the participant’s homes. Survey results will be shared at each gathering location once the surveys have been completed and the survey information has been analyzed. Following the survey, the small groups will continue to meet to learn about mold and other environmental health hazards and how group members can take steps to minimize the impact of mold on their health. Where appropriate, group members will also discuss how they can take collective action in conjunction with the landlord, DeKalb County Board of Health or other stakeholders to improve their health. Each location will host an additional 3-4 monthly workshops with 10- 15 persons attending each workshop session.

We have begun to partner with four venues within the community. CDF already convenes a number of community gatherings where a community-based health and environmental health curriculum could be presented. They also already are hosting health education circles at various locations throughout Clarkston. This series of activities is consistent with this ongoing programming. CDF is also working to develop a series of resident councils which will serve as a forum for resident empowerment within the various Clarkston apartment complexes.

One specific location supportive of this project is the Willow Branch Complex who offers wellness and other services to immigrant residents through an affiliated non profit. Although it is unlikely that indoor air quality issues are present at its units, involving its staff in Project Exhale through utilizing its facilities as a site for programming should provide valuable feedback about the concerns and experiences of apartment owners. Not all apartment complexes will be supportive of their tenants attempts to learn how address mold and advocate on their own behalf for mold mitigation. By including Willow Branch as part of this pilot effort from the beginning, we hope to learn about and begin to include the concerns of a “supportive” apartment owner in the project design. We hope that what we learn can then be used as we expand the program to resolve problems at other apartment complexes.

Another site that is already supportive of this program is the Early Learning Scholars and Family Services, a community- based EAF partner since 2012. This center offers day care and other services to approximately 80 Clarkston families, roughly 85% of whom are refugee families. Project Exhale will be included as one of their monthly parent workshop series.

A final proposed small group site is the Clarkston Community Center, a community-based programming hub. Founded in 1994, the Center serves more than 100 people daily through unique programs designed to bring people together across traditional divides. The Center believes in the power of community to support the individual, and in the power of the individual to support community. Their mission is to be a gathering place for art, education, recreation and community building activities in Clarkston and greater DeKalb County. Workshops held at this location will target seniors who are already accessing services at the Center. An alternate location for senior-specific outreach is the Scottsdale Senior Center about 3 miles away.

## **Progress Milestones**

The proposed timeline for these activities is outlined below.

Project Mobilization:	July 1-July 31, 2015
Community Information Sessions and Survey	August 1-October 31, 2015
Literature review:	August 1-September 30, 2015
Curriculum Development:	September 1- November 30, 2015
Report on Outcome of Community Survey	November 1-30, 2015
Organize Community Outreach groups	December 1-31, 2015
Conduct Community Outreach	January 1 – May 31, 2016
Project Evaluation and Final Reporting	June 1-June 30, 2016

## **Evaluation**

An independent program evaluation will be conducted to verify that Project Exhale has been effective in achieving its goals. We will use written surveys and oral interviews as our primary evaluation tools. This program uses surveys in two ways. We are first seeking to gain additional information about the location and extent of mold contamination in Clarkston. The written survey effort proposed as Project Exhale's first activity will allow us to target the extent of the problem, locating the housing complexes and homes to be targeted in later program activities.

Once the locations of the most greatly affected population are more specifically identified, we will confirm that the outreach has achieved the desired impact. We will use written surveys as the primary mechanism to confirm that the targeted improvements in knowledge and skills have been achieved. Where language barriers preclude written surveys, we will use oral interviews to confirm participant's skills and knowledge.

Emory University students will design and conduct the evaluation with support from Emory faculty and CDF staff evaluators. A summary of Project Performance Measures is attached to the proposal application.

## **Partnerships**

EAF will be the lead implementing agency for Project Exhale. Their efforts will be supported by Emory School of Public Health and CDF. A brief description of these partners appears below:

**Emory's Rollins School of Public Health (RSPH):** At RSPH, students learn to identify, analyze, and intervene in today's most pressing public health issues. The school's location in Atlanta, referred to as the "Public Health Capital of the World," also is home to the U.S. Centers for Disease Control and Prevention; CARE; the national home office of the American Cancer Society; The Carter Center; the Arthritis Foundation; and numerous state and regional health agencies. This setting is ideal for hands-on research, collaborations with the world's leading public health agencies, and interdisciplinary work with national and international organizations.

The field of public health is rooted at the community level. Students at RSPH are consistently among the most engaged students on campus. Most students participate in a number of community-engaged courses as part of the core public health curriculum, such as Community Needs Assessment, Conduct of Evaluation Research, Curriculum Development, Evidence-based Strategic Planning as well as many additional optional courses. Additionally, all students take part in a practicum experiences, as required by the Council on Education for Public Health (CEPH). A Practicum is a required element for professional public health degree students at the master's and doctoral levels to apply the knowledge and skills being acquired through their courses of study. Practical knowledge and skills are essential to successful practice.

Furthermore, the Rollins School of Public Health and the community of Clarkston have a long-standing partnership through the Clarkston-Rollins Connection (ClaRC) program. ClaRC students participate in a weekly seminar focused on ethical community practice as well as weekly service with local organizations in Clarkston. This partnership focuses on meeting the organizations' needs for volunteers and to collaboratively identify and address needs and assets of the community. ClaRC students foster connections by exploring the community and participating in community events in Clarkston. The diverse communities of Clarkston offer a unique opportunity to build relationships and projects born from a close collaboration between people of different backgrounds.

For Project Exhale, Emory graduate students will provide support in conducting the community surveys, completing the literature review and the curriculum. They will also join in the presentation of research findings to the community groups.

**CDF: A Collective Action Initiative** is a 501(c)(3) organization founded in 2010. CDF is a community impact organization in Clarkston, Georgia, engaging residents through holistic programs of safety, education, economic development, and community health. CDF's vision for community health is that all residents will have a medical home, equity of access to care, preventive health programs, and health education. For the past four years, CDF has worked to connect and engage the diverse residents of Clarkston by helping them recognize and develop their assets and assist them in creating activities and services that benefit the community. Core elements of CDF's approach are resident engagement, capacity building and organizational collaboration

On this project, CDF will assist in the development and the delivery of the environmental health curriculum to the resident councils and health education circles. More importantly it will provide its expertise in relationship building that will create trust and supports vibrant community life. As residents connect with each other, collaborate with other community members and organizations, they will then be able to transform their own community. CDF participation will insure that these elements are integrated within both the resident councils and the committees formed at all of the small group sites.



## Relevance to the Environmental Statutes

This project will address environmental justice issues as they relate to the prevention of indoor air pollution which is identified by **Clean Air Act**, Section 103(b)(3): and **Toxic Substances Control Act**, Section 10(a):

## V. Organizational Capacity and Programmatic Capability

Environmental Awareness Foundation (EAF) is a 501 c 3 non profit organization who since 1989 has offered training, outreach and advocacy to improve the indoor air quality of residences in Georgia's urban communities. EAF's early activities focused on community education and outreach around the issues of mercury, lead paint and radon poisoning. With the implementation of Georgia legislation that resolved these issues, EAF now focuses on indoor air quality issues due to mold, asbestos, pesticides and lead paint exposure particularly as these contaminants impact asthma. Since 1996, EAF has produced a community radio program focused on environmental health, "In Tune to Nature." We provide training to vulnerable communities, partner with other organizations to provide needed materials and resources with which communities can address their issues and advocate to strengthen regulation of these environmental health contaminants.

EAF's accomplishments include:

- Partnering with Southside Health Center to educate over 250 people around the issues of asthma control and lead paint contamination. As part of this project, EAF provided outreach to evaluate the prevalence of triggering materials in 25 homes and replace them with trigger free materials.
- Conducting over 50 workshops throughout Georgia with a focus on low-income communities including East Point, Adamsville and the metro-Atlanta neighborhoods of Peoplestown, Mechanicsville and Old Fourth Ward. Typically two workshop sessions have been held each year in each of these two communities over the past 22 years.
- Partnering with GA State University, Clark Atlanta University, GA Tech and other metro-Atlanta universities to deliver programming.
- Partnering with the City of Clarkston to deliver programming.
- Advocating for changes in Georgia lead paint poisoning reduction legislation. This legislation was passed in 1993.
- Partnering with Georgia State University's, Urban Health & Well Being Initiative. This project focuses on the transformation of Atlanta's public housing. EAF served as the outreach partner for this project.
- Partnering with Emory University in their efforts to conduct research about the health of public housing residents in the different neighborhoods of Atlanta. EAF also completed the community outreach component of this project.

To manage this project, EAF plans to employ project control systems to create the project, identify key planned project activities and track the status of completion of these activities as the project progresses. A professional accountant is employed to manage project spending and insure that the funds received are spent appropriately on this project. EAF's Board of Directors will retain oversight of the expenditure of project funding as well. EAF retains a written set of procedures for the management of income and expenditures on grant funded projects.

EAF has not received an EPA and/or other Federal grant/cooperative agreement in the last five years.

## ***VI. Qualifications of the Project Manager (PM)***

Bill Burns is the proposed Project Manager of Project Exhale. A copy of his resume is attached to this application. Bill acts as an EAF Program Manager where he has both served in an administrative role and managed EAF's programs in the field. In his administrative role he has established and overseen administrative procedures in accordance with the requirements of the Board of Directors as well as recruited, interviewed and hired program. Past projects have also required that Bill plan and administer program budgets and spending.

Some of his past activities in the field that will be replicated in this project include: His work in the field has included. the preparation of outreach and workshop materials, conducting outreach activities including door to door community surveys, educating and informing communities about environmental health and environmental justice issues

Motivated by his knowledge of the area needs when he lived there, Bill has led efforts in Clarkston since EAF's initial activities there in 2010. He served as lead trainer the early community workshops on lead paint pollutions as well organized and directed volunteer efforts for the door to door survey of the Clarkston community to identify key needs. He continues to stay involved in Clarkston activities and seek opportunities to support this community in need.

Bill has participated as a member of Emory University's HERCULES Community Advisory Board since its inception in 2013. The community outreach and engagement core of HERCULES seeks to incorporate community concerns into the research efforts of HERCULES investigators in the long-term by developing partnerships between the community, scientists and healthcare providers. In his role on the Board, he has consistently both highlighted the negative impact on indoor air pollutants and contaminants while championing the interest of the Clarkston community.

## ***VII. Past Performance in Reporting on Outputs and Outcomes***

EAF has not received an EPA and/or other Federal grant/cooperative agreement in the last five years and therefore does not have prior experience in report outputs or outcomes under a federal government agreement.

## ***VIII. Quality Assurance Project Plan (QAPP) Information***

Although this project will involve the collection and analysis of survey information related to the presence or absence of mold and other environmental health information, this project will not involve the collection or analysis of existing or new environmental data. We do not believe that a Quality Assurance Project Plan will be necessary.